

Work Order ID 100344

100344

April-22-13 1:02:10 PM

Page 1

Item ID: 646.3311

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: RH Half

Start Date: 4/22/13 Start Qty: 10.00

10

Cust Item ID:

Required Date: 4/22/13 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: M05

Date: 13-04-23

Tooling: _____

Date: _____

Run Start

NR1

QC:

Date: _____

SPC (Y/N):

Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
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646.3300	N/C
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110	0.00
-----	------

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

HAAS CNC vertical machine #1

Memo

1-Machine per folio FB154

DWG REV: N/C

FOLIO REV: AA

120	0.00
-----	------

120

QC2- Inspect parts off machine FAI/FAIB

QC

Quality Control

Memo

0.00

0.00

0.00

13/05/20

13/05/20

13/05/20

10 0

DAS
08
9-89

10 0

DAS
08
9-89

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS															
Part No. _____		Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>													
NCR No. _____																			
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector										
Doc/Data																			
Equip/Tooling																			
Operator																			
Material																			
Setup																			
Other																			
Process																			
Supplier																			
Training																			
Unapproved																			
FAULT CATEGORY																			
Landing Gear			General																
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio							<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge			<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled		<input type="checkbox"/> Other	

Work Order ID 100344

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Page 2

April-22-13 1:02:10 PM

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N900040100

Setup

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NS1

Revision ID:

Item Name: RH Half

Stop

NS2

Start Date: 4/22/13

Start Qty: 10.00

10

Cust Item ID:

Required Date: 4/22/13

Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC8- Inspect parts - second check

0.00

10

DAS

130

QC

Memo

0.00

25

13-8-21

Quality Control

131

131

HandFinish

Memo

0.00

10 16/13-5-28

Hand Finishing

CLEAN AND REMOVE ALL PART MARKING

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Outsource process - Anodize

Memo

0.00

Issue P/O: 19997

Black Anodize as per Dwg 646.3300

CX13/05/28 10

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
				Use-as-is <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
Part No. _____				Work Order Update <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
NCR No. _____					Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio							
				<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions							
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge							
				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled							
				<input type="checkbox"/> Other							

Work Order ID 100344***100344***

Page 3

April-22-13 1:02:10 PM

Item ID: 646.3311

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: RH Half

Start Date: 4/22/13

Start Qty: 10.00

10

Cust Item ID:

Required Date: 4/22/13

Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

150

Packaging

Packaging

Receive & Inspect for Damage & Mat'l Certs

0.00

P-13/6/12 (10)

155

155

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

N/A

Memo

0.00

160

160

SprayPaint

Spray Painting

Spray Painting per QSI005 4.2

0.00

Memo

0.00

PRIME AS PER DWG, SEE NOTE #2

PRIMER BATCH: 125452*CZ 13/05/28*

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data	<input type="checkbox"/>											
Equip/Tooling	<input type="checkbox"/>											
Operator	<input type="checkbox"/>											
Material	<input type="checkbox"/>											
Setup	<input type="checkbox"/>											
Other	<input type="checkbox"/>											
Process	<input type="checkbox"/>											
Supplier	<input type="checkbox"/>											
Training	<input type="checkbox"/>											
Unapproved	<input type="checkbox"/>											
FAULT CATEGORY												
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio		<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions		<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Work Order ID 100344

100344

Page 4

April-22-13 1:02:10 PM

Item ID: 646.3311

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: RH Half

Stop

NS2

Start Date: 4/22/13 Start Qty: 10.00

10

Cust Item ID:

Required Date: 4/22/13 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

170

170

QC

Quality Control

QC14- Inspect Spray Paint

6

Memo

0.00

0.00

13.612

10

180

180

Packaging

Packaging

Identify as per dwg & Stock Location:

MF

0.00

13-06-12

10

Memo

Russ

0.00

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

190

190

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

13/6/17 JJ

W 13/6/13

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS								
			Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging	Engineering Quality Other						
Part No. _____													
NCR No. _____													
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector				
Doc/Data													
Equip/Tooling													
Operator													
Material													
Setup													
Other													
Process													
Supplier													
Training													
Unapproved													
FAULT CATEGORY													
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other			

Picklist Print

April-22-13 1:02:09 PM

Page 1

Work Order ID: 100344

Parent Item: 646.3311

Start Date: 4/22/13

Required Date: 4/22/13

Parent Item Name: RH Half

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 12/11/27 JFS VERIFY BY: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B7.000X2.000 7075-T6 BAR 7.000" X 2.000" (order in billets)		Purchased	No			f		6.9200		11.736842			

Location	Loc Qty	Loc Code
MAT001	6.92	
124030	6.92	

M125584 x 11.74 on 13/05/17

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other				
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear	General										
	Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced		
	Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure		
	Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld		
	Crushed/Crimped	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled		
	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>			
	Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>			
	Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>			
	Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Offset	<input type="checkbox"/>	Other	<input type="checkbox"/>			
	Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>			
	Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>			
	Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>		<input type="checkbox"/>			

APICAL
INDUSTRIES, INC.

DWG NO. 646.3300

REV: N/C

PREPARED
BY B. PETERS

DATE: 12/05/12

EFFECT ON DWG:
 INC. UNINC

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY:

ENGR: *John*

MFG:

*David Baker*QC: *John*

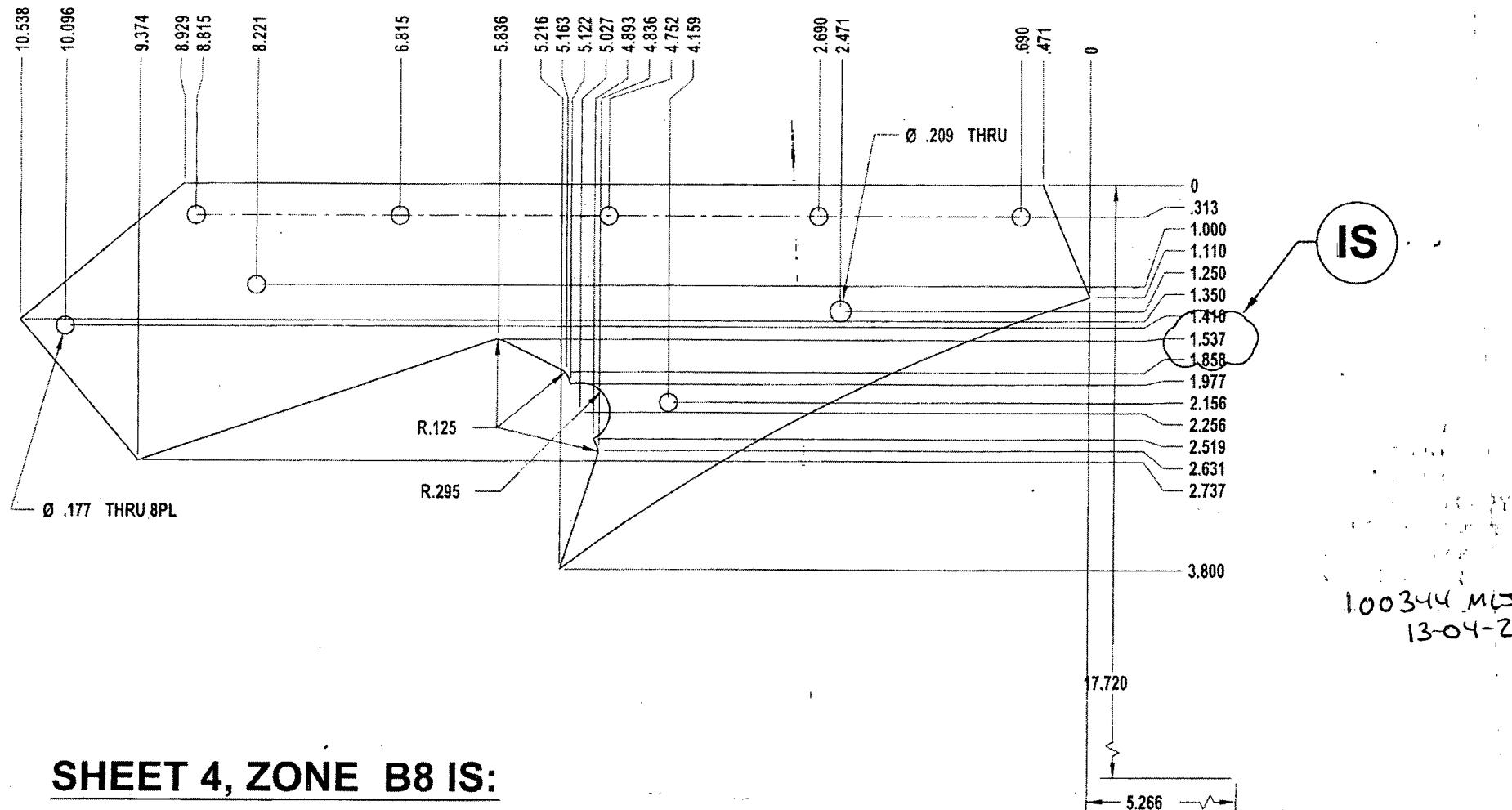
EFF: NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON:

REVISED ORDINATE DIMENSION.

ECR: D-12-025

**SHEET 4, ZONE B8 IS:**

DOCUMENTS EFFECTED:

 RFMS MDL INSTALL INSTRUC ICA BOM
CHANGE CATEGORY
 MAJOR MINORDER REVIEW REQUIRED
 YES NO

LO 0344

APICAL
INDUSTRIES, INC.ENCLOSURE R-1000-1000-A, 02.ME. 1000-1000-1000
DWG NO. 646.3300 | REV N/C | PREPARED BY S. HUFF | DATE: 01/05/09 | EFFECTIVE DATE: 01/05/09
E INC. X UNINC.

DWG TITLE: UPPER CUTTER ASSY

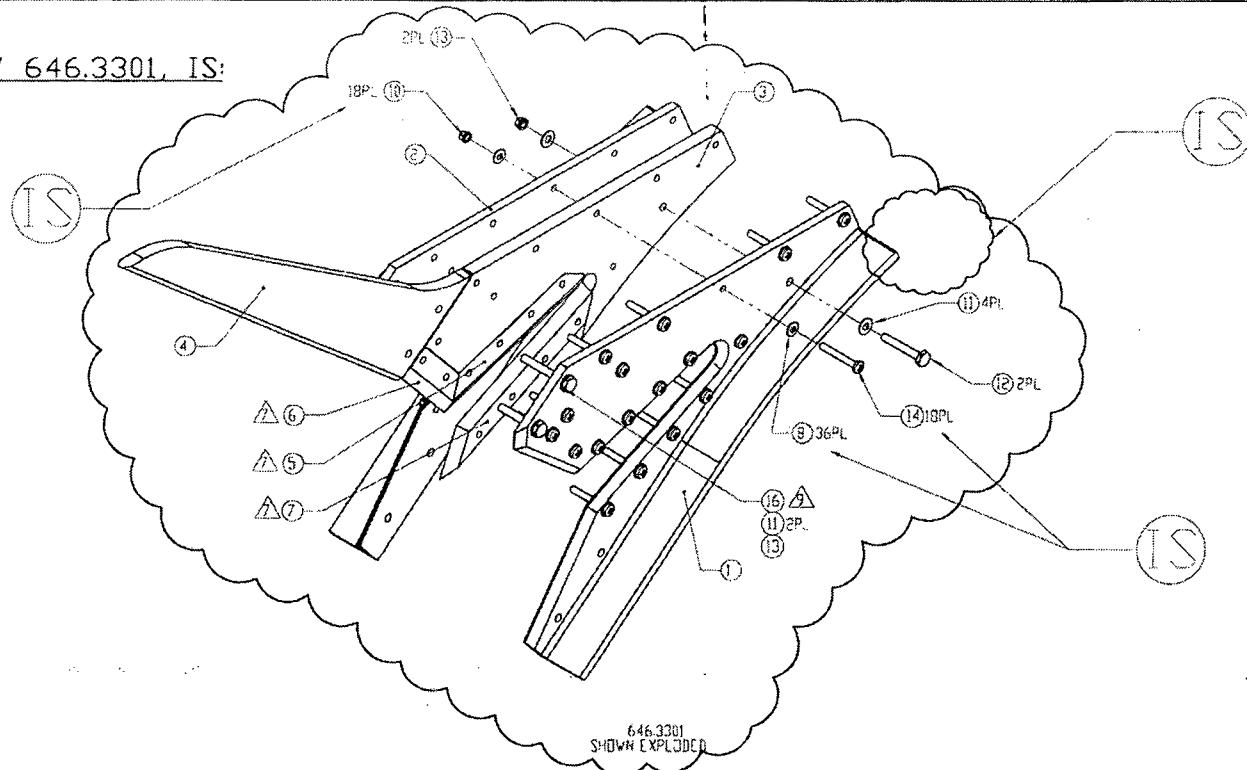
APPROVED BY: ENGR *P. Brown*MFG *Dan O'Connell*QC *SST*

EFF: NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS

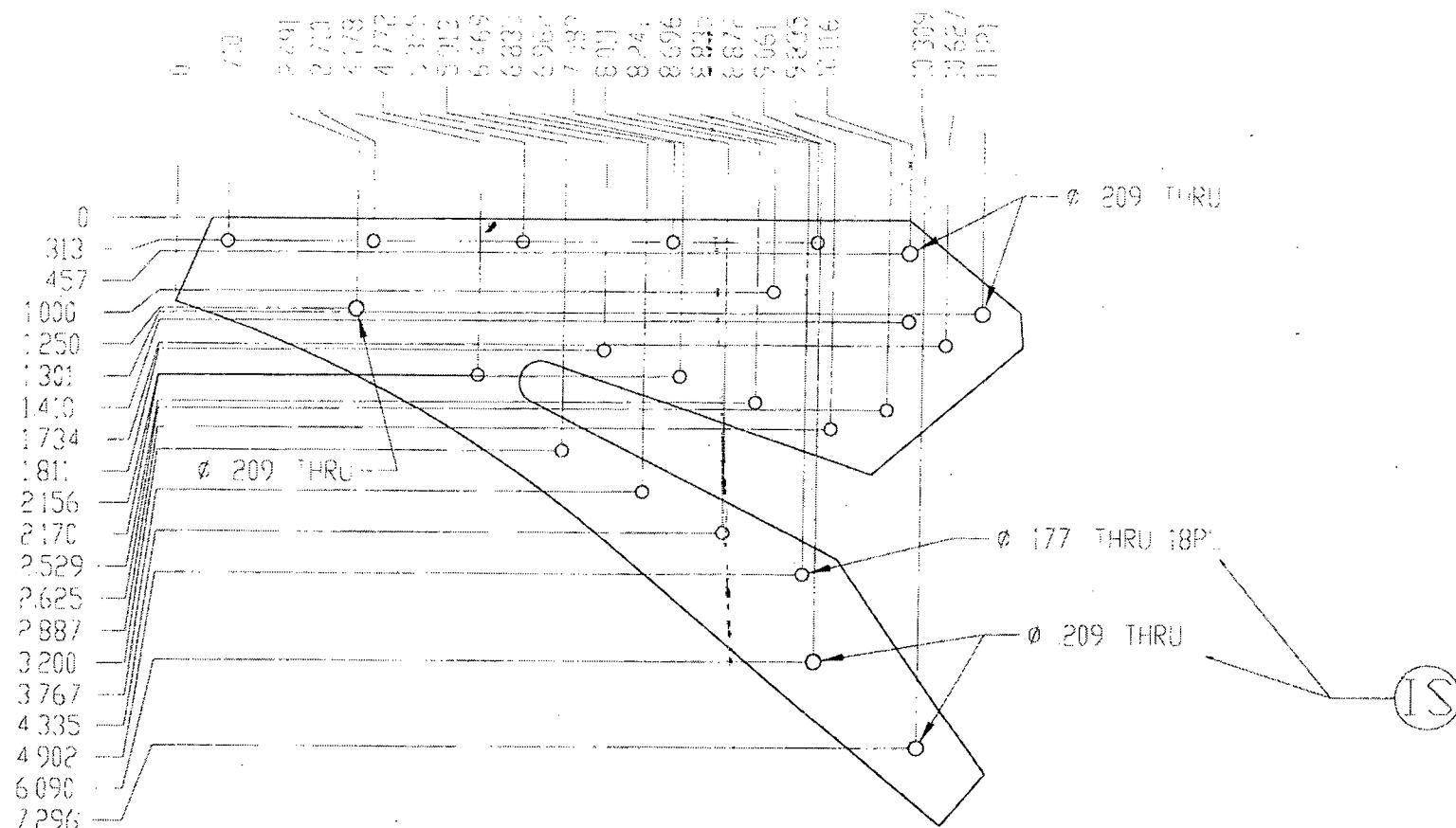
SHEET 1, VIEW 646.3301, IS:



14	R	601.2765		18	SCREW	MS27039-0819
10	R	601.1541		18	LOCKNUT	MS21042L08
9	D	601.2766		3	RIVET	MS20470AD5-18
8	R	601.2764		36	WASHER	NAS1149FN832P
			646.3301			
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION	
DOCUMENTS EFFECTED:				<input type="checkbox"/> MDL <input checked="" type="checkbox"/> INSTALL INSTRUC <input checked="" type="checkbox"/> ICA <input type="checkbox"/> FMS <input checked="" type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

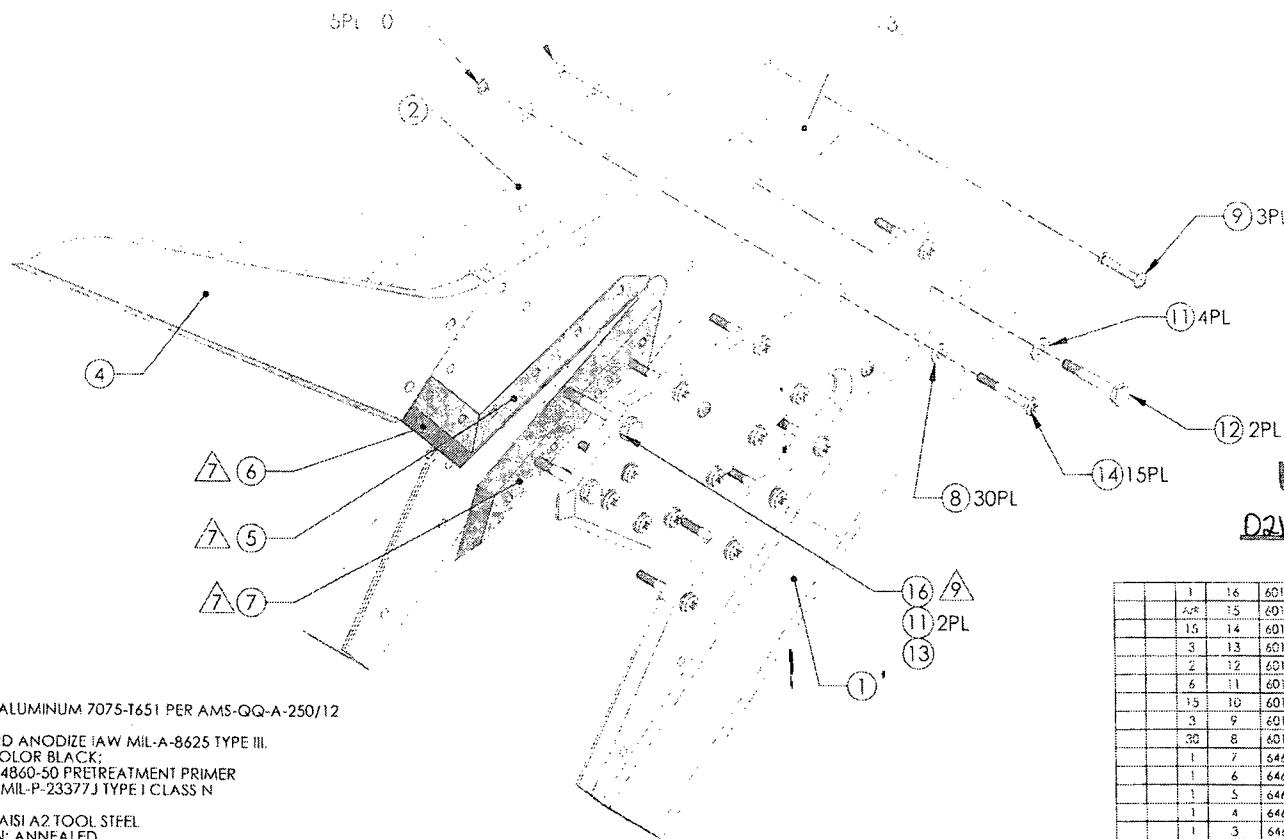
DRAWING NO. 100344 SECTION A-A

SHEET 3, SECTION VIEW A-A, IS



SECTION A-A

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
-----	----	-------------	-----	-------------	------------------------



646.3301
SHOWN EXPLODED

UNINCORPORATED ECN(s)

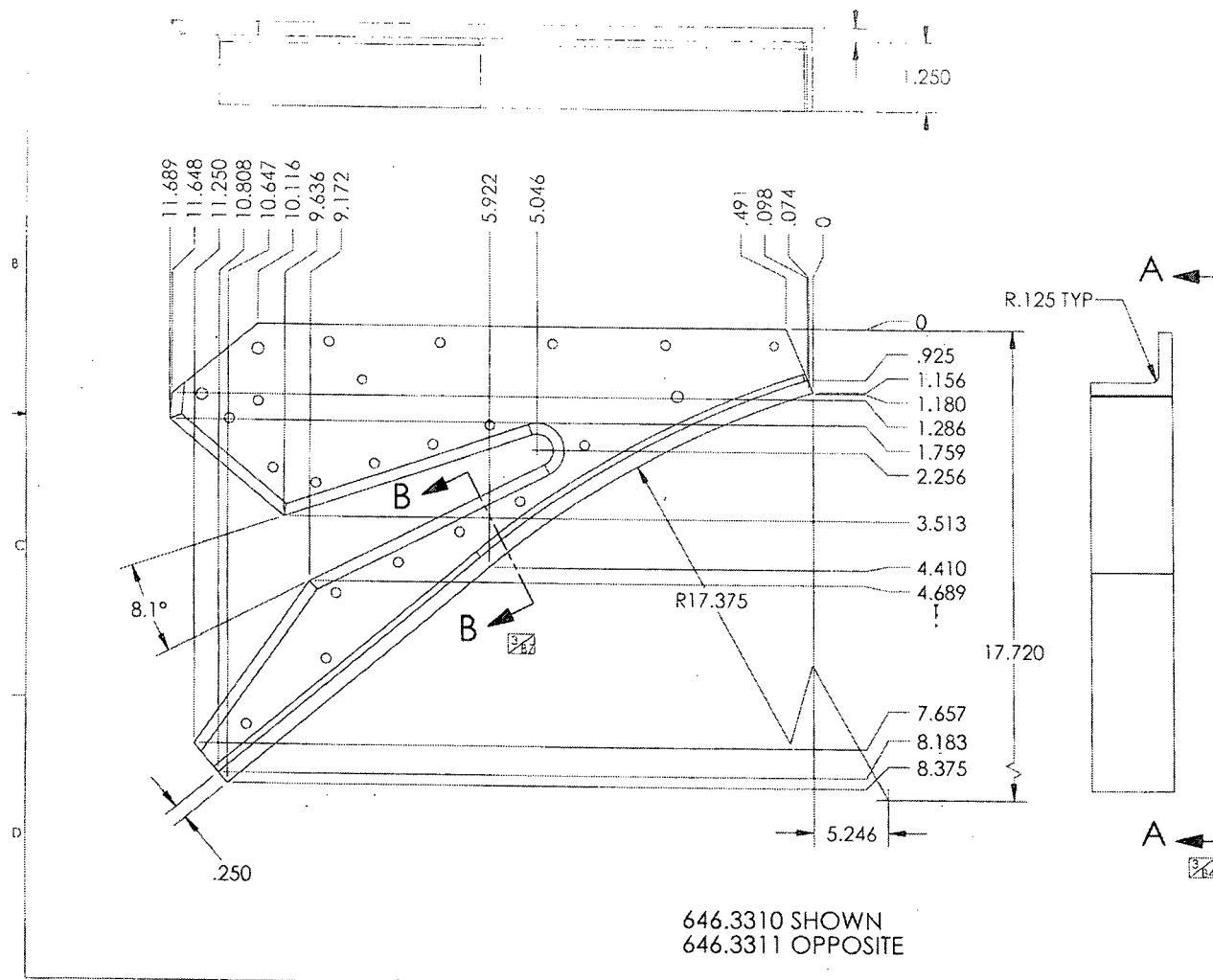
02196, 03724

QTY	1	16	601.2634	BOLT	AN2142
AMT	15	601.2045	RIV. LOCITE 398		
	15	601.2765	SCREW	MS2702M 0814	
	3	601.1624	LOCKNUT	AS2142B-3	
	2	601.2763	BOLT	AS2142	
	6	601.1607	WASHER	AS2142M0814	
	15	601.1541	LOCKNUT	AS2142H0814	
	3	601.2766	RIVET	MS2702M 0814	
	30	8	601.2764	WASHER	AS2142M0814
	1	7	646.3316	BLADE	
	1	6	646.3315	BLADE	
	1	5	646.3314	BLADE	
	1	4	646.3313	UPPER GUIDE	
	1	3	646.3312	CENTER PLATE	
	1	2	646.3311	PH HALF	
	1	1	646.3310	1H HALF	
			646.3301	UPPER CUTTER ASSY	
				FIND #	PART #
				DESCRIPTION	MATL
					SPEC
					CITY
					PARTS LGT
					OPERATOR
					BRONWEN
					TO-RECEP
					3-HDR
					SP-AKVO
					DRAWING APPROVAL
					83
					DATE 20-02
					CONTRACT NO.
					UNLESS OTHERWISE SPECIFIED
					DIMENSIONS ARE IN INCHES
					PLACE DECIMALS 1ST
					FRAC BODIES 1ST
					ANGLE 1/2
					REV
					646.3300
					PCN
					646.3300
					1
					SCALE: NONE
					1 SHEET
					1 OF B

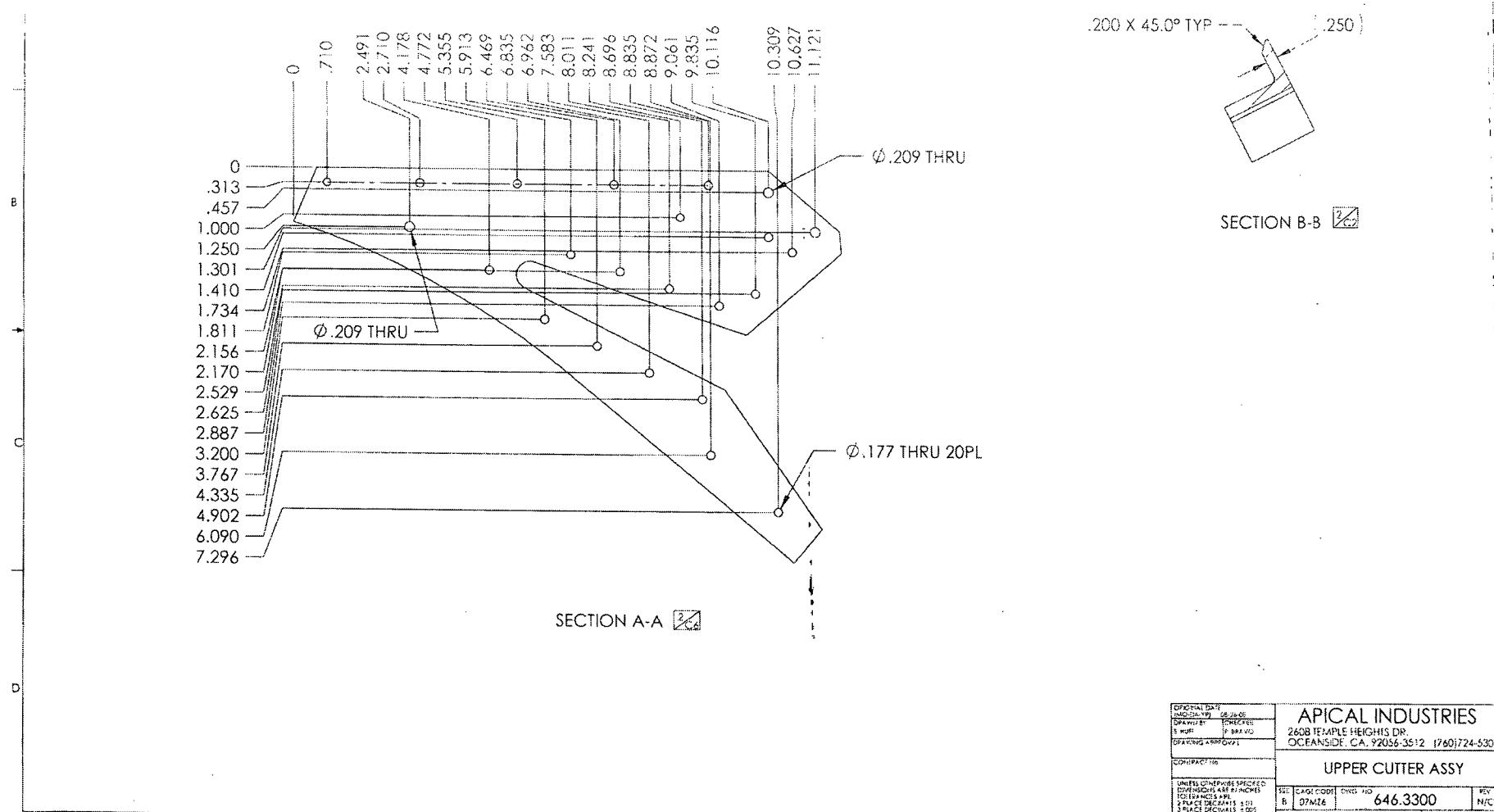
APICAL INDUSTRIES

2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA 92056-3512 (760)724-5330

100344

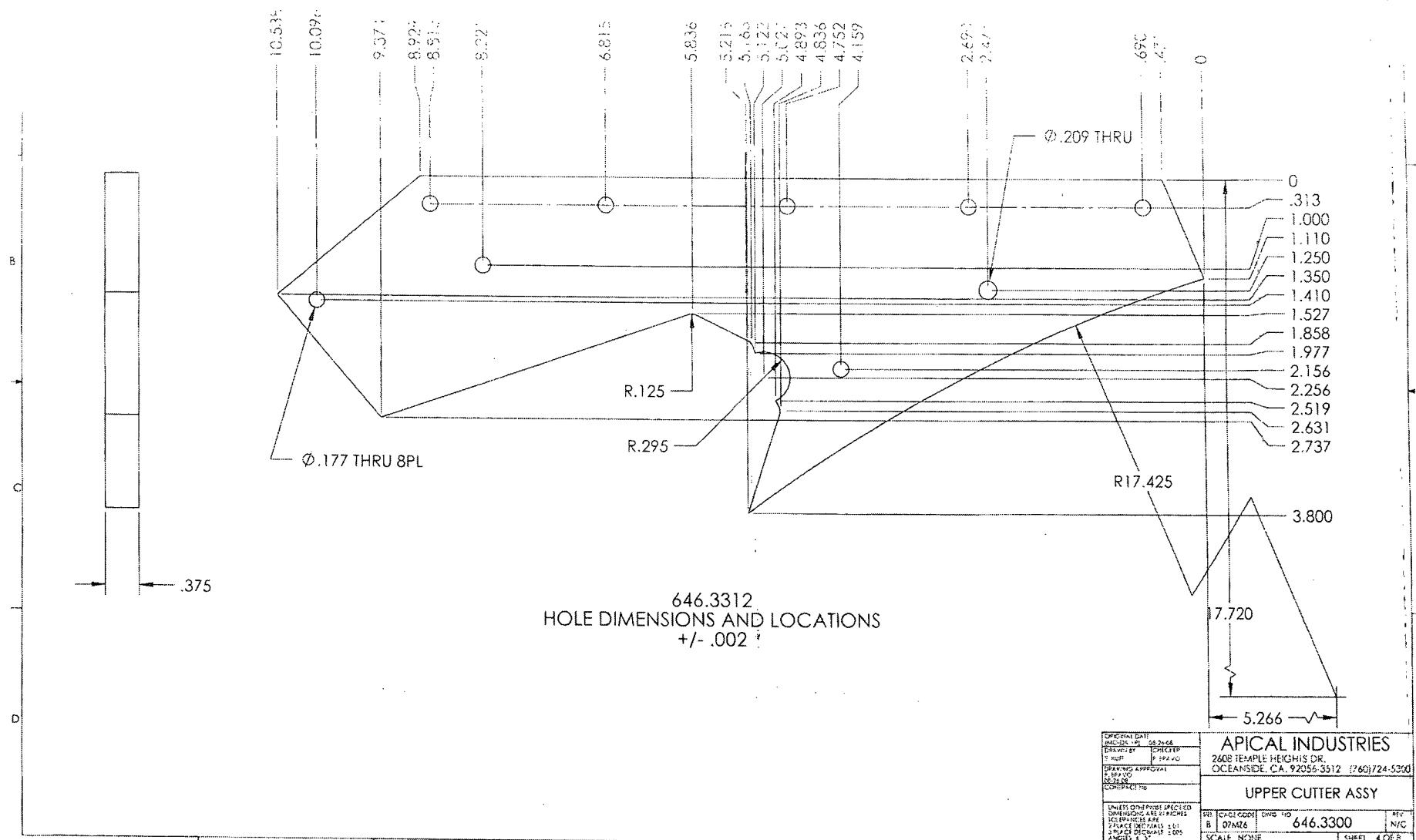


100344

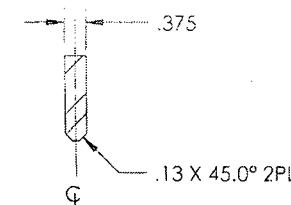
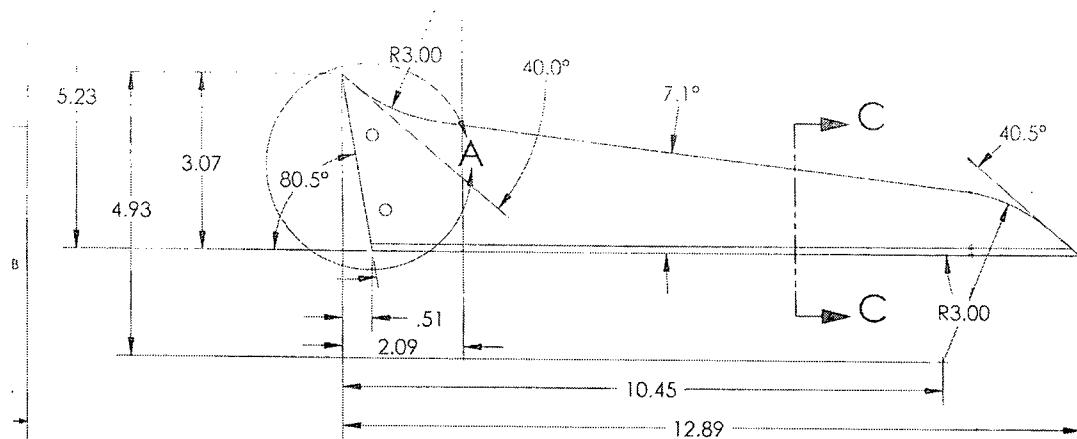


ORIGINAL DATE	APICAL INDUSTRIES					
DATE 03-19-09	DESIGNER	TECHNICAL				
2009	3. WOLF	3. BRAVO				
	DRAWING APPROVED					
	COMPUTER 100					
UNINTEGRATED P/N: 646.3300						
DRAWING NUMBER: 646.3300						
TOLERANCES: AS PER						
MATERIAL: 1010						
SURFACE FINISHES: 100						
ANCHORS: 1" 3"						
SCALE: NONE						
SHEET 3 OF 6			REV: N/C			

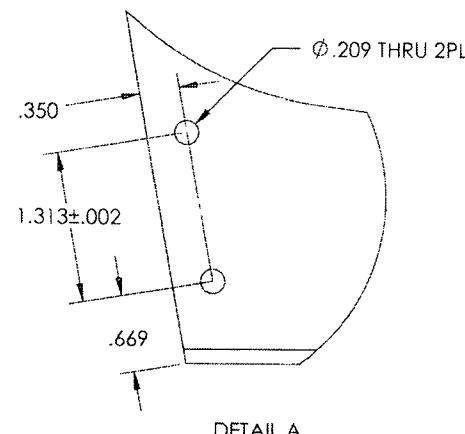
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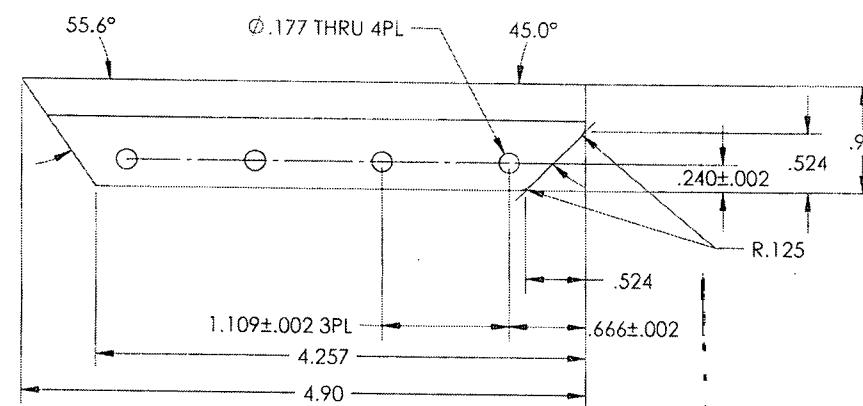
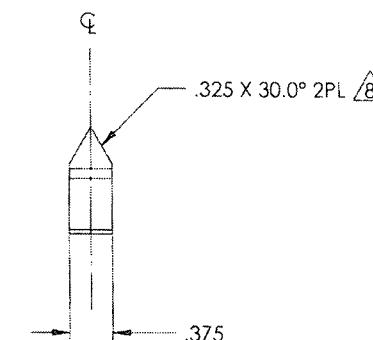
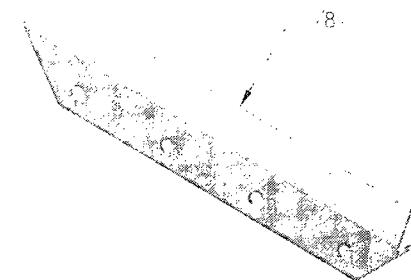


SECTION C-C



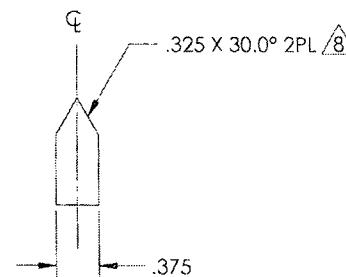
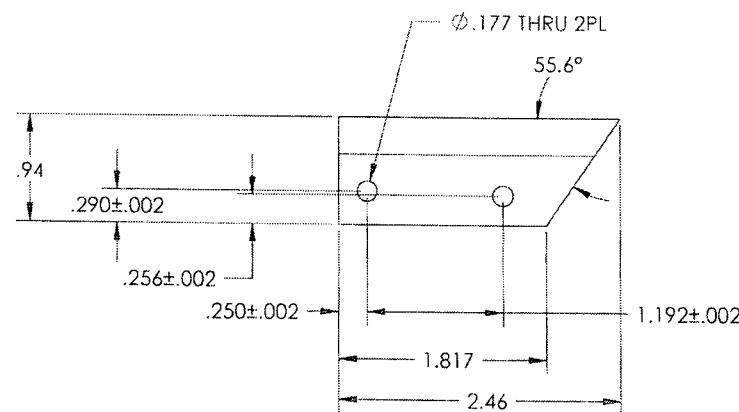
646,3313

100344



646.3314

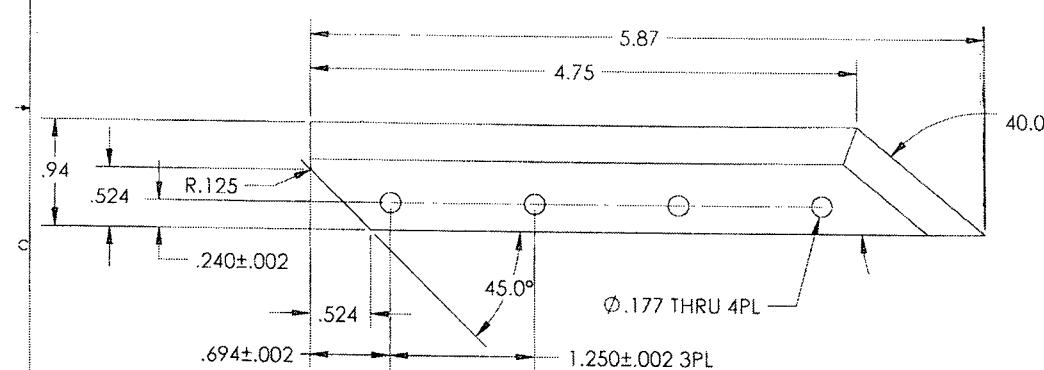
100344



646.3315

ORIGINAL DATE	05/24/94	REVISED DATE	05/24/94
DESIGNER	APICAL	REVIEWER	APICAL
S. HOFF	APICAL	APICAL	APICAL
DRAWING NUMBER: 646.3315			
DRAWING TITLE: UPPER CUTTER ASSY			
UNLESS OTHERWISE SPECIFIED TOOLFRANCES ARE SPLINE DIA. 1.105 SPLINE DEPTH 0.1105 ANGLES 3.5°			
SCALE	1:1	DATE	646.3300
INCHES	INCHES	INCHES	INCHES
646.3315	646.3300	646.3315	646.3300
SCALE: NONE		SHEET: 7 OF 8	

100344



646.3316

EXPIRATION DATE	APRIL 2001	DESIGNER	CHIEF
REVISION	1	DRAWN BY	SHAW
DRAWINGS APPROVED			
SPONSOR	AP	DESIGNER	AP
CONTRACTING			
APICAL INDUSTRIES			
2608 TEMPLE HEIGHTS DR.			
OCEANSIDE, CA 92056-3512 (760)724-5300			
UPPER CUTTER ASSY			
REF ID	CH-0000	DRAWN BY	SHAW
S	07/01/00	REV	1
SCALE: NONE			
SHEET 6 OF 8			



DART AEROSPACE LTD	Work Order:	100344
Description: RH HALF	Part Number:	646.3311
Inspection Dwg: 646.3300 Rev: N/C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.250	+/- .005	0.245	✓		Mic	6A-03
1.250	+/- .005	1.252	✓		H-6	31006
R0.125	+/- .005	R0.125	✓		R-6	ref.
3.513	+/- .005	3.515	✓		H-6	31006
8.375	+/- .005	8.373	✓		"	"
0.250	+/- .005	0.251	✓		"	"
11.689	+/- .005	11.687	✓		"	"
0.200x45°	+/- .005	0.200x45°	✓		Vern	6A-01
Φ0.209	.005 / -.001	Φ0.210	✓		"	"
Φ0.177	.005 / -.001	Φ0.178	✓		"	"
0.710	+/- .005	0.710	✓		H-6	31006
10.116	+/- .005	10.116	✓		"	"
5.355	+/- .005	5.355	✓		"	"
10.309	+/- .005	10.309	✓		"	"
0.313	+/- .005	0.313	✓		"	"
0.457	+/- .005	0.457	✓		"	"
3.200	+/- .005	3.200	✓		"	"
7.296	+/- .005	7.296	✓		"	"

Measured by:	M. a	DAS	Audited by:	L. S.	Preliminary Approval:	
Date:	13/05/20	08/08	Date:	13-5-21	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.06.15



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 62441

Date: 12-Jun-13

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms	Ship Via
Quantity	Description
10 ea	Part: 646.3311 HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N Job: 20130360 PO: 19997
10 lot	Part: 646.3210 HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIMER PER MIL-P-23377J TYPE I CLASS N Job: 20130359 PO: 20099
1 lot	Part: ASST 10 PCS 646.3715 12 PCS 646.3812 HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N Job: 20130358 PO: 20113
	Certificate of Conformance



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 62441

Date: 12-Jun-13

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms	Ship Via
Quantity	Description
	<p>A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.</p> <p>ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY</p> <p>DATE: <u>12/6/13</u></p> <p>CERTIFIED SIGNATURE: <u>m</u></p> <p>RECEIVER SIGNATURE: _____</p>